







# Virtual Mission Water Technology and Circular Economy

4 November 2020

**Dutch Participants** 









# Oisann Engineering

http://waterfountain.no

Mr. Kyle Hopkins

#### Description of the company's history:

Oisann Engineering BV is a Dutch company of Norvegian origin, focused on helping solve the global water crisis without creating an environmental crisis. Oisann is specialist in desalination.

#### Description of the company's core activity:

They have developed and patented Waterfountain, an offshore desalination system that is more environmental and economical than standard reverse osmosis desalination. Compared to standard desalination plants, the estimated CAPEX is 35% lower and OPEX is 50% lower. Waterfountain can produce from 10.000 m³ per day to over 100.000 m³ per day and a smaller un-manned unit can produce from 50-500 m3/day for small communities, islands, military use, emergency response etc.

Powered by fossil fuel Waterfountain is highly cost competitive and when powered by renewable wind energy the cost to produce a m<sup>3</sup> of desalinated water is significantly lower than standard reverse osmosis desalination.

#### Benefits of the Waterfountain

No chemicals required 50% reduction in operating costs 35% reduction in construction costs Can be powered by renewable energy Over 90% reduction in land required Over 95% reduction in brine salinity Can be relocated or removed at end of life - circular economy

#### Oisann would like to meet:

Municipal partners, large water-related companies that help municipalities to desalinate water, EPC Contractors, **Engineering Companies** 

#### Language required:









## D2D Water Solutions B.V.

#### Description of the company's history:

D2D Water Solutions is a Dutch based company with over 25 years of experience in water management. They develop, produce and supply smart purification systems for water. To use at home, in offices, schools or in other buildings. Wherever clean water is needed.

https://www.d2dwatersolutions.com/

Mr. Johan Bel

#### Description of the company's core activity:

D2D Water Solutions' main product is the Drop2Drink unit, which enables people to make drinking water out of rainwater. The intelligent treatment system ensures 100% microbiologically safe water which has been purified with a microfilter, active carbon filter, membrane filter (UF) and UV unit. All in one step.

The membrane filter is self-cleaning and constantly monitors its own functioning. The quality of the water is therefor guaranteed, but a UV unit provides additional microbiological purification. This means double security.

The Drop2Drink unit has a flow of 20 or 30 l/min which means that an entire household can run on rainwater. All the taps can be connected, the shower, bath, dishwasher, washing machine and toilets. Anywhere were water is needed.

The unit is suitable for (collective) housing, farms, recreation and industry and it is plug & play, so easy to install, use and maintain.

#### D2D Water Solutions would like to meet:

Distribution partners in Italy for the Drop2Drink unit

Language required:









## Water Future BV

http://www.waterfuture.nl

Mr. Willem van Baak

#### Description of the company's history:

Water Future (WF) is an innovative and flexible SME company. They research, develop, produce and sell affordable water purification systems for greenhouse, agriculture, industrial, and 3rd world potable water applications.

The developed water desalination systems with ion selective separations purify water, save water, and recover valuable salts. Water Future intends to contribute to solve freshwater stress in the world and to create better water accessibility for everyone.

#### Description of the company's core activity:

- EcoGreen is our solution, specially developed for the horticultural sector. Smart technology ensures sustainable desalination, virtually zero emissions, and optimal control over water quality, while preserving nutrients.
- With EcoBlue the company is researching the possibilities of achieving significant water savings. The EcoBlue line is currently under development.
- EcoGrey makes it possible to recycle industrial wastewater 100%. This involves recovering valuable raw materials and removing pollutants. Do you want optimal control over your wastewater?

#### Water Future would like to meet:

Installers/distributors of water systems for greenhouses

Facility managers and users of water treatment systems in cooling towers (hospitals, office buildings)

#### Language required:









## **Pathema**

https://www.pathema.nl/en/

Mr. Mark Boeren

#### Description of the company's history:

Pathema is an innovative and dynamic company which has been successfully engaged in the engineering of sustainable water treatment technology and product development.

#### Description of the company's core activity:

- Pathema systems take off chemicals from cooling water (eliminating lime that causes corrosion and legionella) with an Industrial Vortex Generator-Circulation (IVG-CT) method.
- They reduce 20-50% use of cooling water (saving water)
- They clean industrial water waste in order to be re-used as cooling water

#### Pathema would like to meet:

Food processing plants

Data centers (and companies that build them as contractors and engineering firms)

Petro chemical plants

Large cooling tower users

#### Language required:









# Spatial Insight

http://www.spatial-insight.com

Mr. Ignaz Worm

#### Description of the company's history:

Dutch data science consultancy focusing on data driven management of underground pipe infrastructure assets.

#### Description of the company's core activity:

Spatial Insight offers algorithms that allow utilities and waterboards to make accountable and optimal decisions in water pipe rehabilitation. They do not replace but include existing models, combining different models and creating a portfolio of pipe rehabilitation projects and the expected reduction of non-revenue water and/or number of leakages.

#### Spatial Insight would like to meet:

They have a special interest in the bigger northern Italian utilities.

#### Language required:









# Van Remmen UV **Technology**

https://vanremmen.nl/en/

Mr. Ton Van Remmen

#### Description of the company's history:

Van Remmen makes UV disinfection systems for liquids and surfaces, where two aspects are at the core: security and sustainability.

#### Description of the company's core activity:

Van Remmen wants to offer the most profitable solutions for every industrial application. Water is UV treated to take out residues of medicines, chemicals and pollutants like cyanide, for reuse of the treated water. To guarantee the effectivity of their systems, each series undergoes extensive practical testing and validation processes with micro organisms. They are specialised in designing and producing UV disinfection systems and advanced oxidation systems for various markets. Van Remmen UV Technology has its own stainless-steel production company in Lichtenvoorde, H&F, and offers custom stainless-steel production.

#### Van Remmen UV Technology would like to meet:

companies that manage wastewater with traditional methods companies that supply water treatment appliances companies that work with legislations/regulations in this field

#### Language required:









# Hydraloop Systems BV

http://www.hvdraloop.com

Mrs. Sabine Stuiver

#### Description of the company's history:

Hydraloop develops award winning decentralized water recycle products for homes, office buildings, hotels, student housing and sports clubs amongst others.

#### Description of the company's core activity:

The turnkey systems are compact & smart, self-cleaning systems that are monitored 24/7, and come with a smartphone app. Due to its unique and patented water treatment technology maintenance requirements are very low, and recycled water is clean, clear, safe & disinfected and meets the highest international standards.

So called Grey Water coming from showers, basins, washing machines and dishwashers is cleaned in the Hydraloop systems and made reusable again to flush toilets etc., in order to reduce potable water usage dramatically.

#### Hydraloop System BV would like to meet:

Architects, housing-, office building and hotel project developers, installers/distributors

#### Language required:









## CirTec BV

http://cirtec.nl

Mr. Coos Wessels

#### Description of the company's history:

With both proven and innovative technology they are able to provide the most appropriate solution for a large number of environmental issues. Waste recycling, re-use of materials and recovery of low-grade energy are key to their solutions.

#### Description of the company's core activity:

Through research and collaboration they look for new ways to solve existing problems in a more sustainable and economical way.

They are active in the municipal and industrial market worldwide and focus on the treatment of wastewater, drinking and process water, biosolids, sludge and gasses. Separation and thickening of solids and liquids are also part of their core activities.

#### CirTec BV would like to meet:

Water authorities and Utilities

Main contractors building/reconstructing STP's

Users of recovered cellulose (from sewage)

Companies that buy filtered substances (eg producers of biocomposites or those who need alternatives for pesticides)

#### Language required:









# Spaans Babcock BV

https://www.spaansbabcock.com/it/

Mr. Bert Boersma

#### Description of the company's history:

Spaans Babcock has over 120 years of experience in designing and building Water and Wastewater treatment equipment and equipment for Hydropower plants. Headquarters and production facilities are located in Balk, The Netherlands.

#### Description of the company's core activity:

Cleaning of municipal sewers and dams

#### Spaans Babcock would like to meet:

Decision makers, Engineering companies, Contractors, Investors (hydro power), Waterboards

#### Language required:









# VDH Water Technology

http://www.vdhwater.com

Mr. Joost Edens

#### Description of the company's history:

VDH Water Technology disinfects water in a sustainable way. The unique combination of salt electrolysis and membrane technology is effective, clean and safe. The (local) production of chlorine from salt guarantees the purest disinfection of water for any industry or process.

#### Description of the company's core activity:

VDH Water Technology develops highly pure disinfection solutions for closed water treatment systems, by gaining chlorine from salt. Due to the utmost balanced system, undesired byproducts such as chlorate, chloride are kept to a minimum. Key factors are disinfection at low temperatures for huge savings in less or even no heating. It is possible to increase product quality, extend machine lifetime and save on product waste, product changing time, chemicals and heating expenses.

VDH Systems are applicable in various industries, such as food & beverage, livestock, greenhousing, potable water, textile.

#### VHD Water Technology would like to meet:

Industries and greenhousing companies that are interested to learn about the details of VDH's revolutionary system

- autonomy in production processes
- reduction of chemical consumption
- improvement of environmental footprint

#### Language required:









## Bluecon International BV

http://www.bluecon.nl

Mr. Jaap Stuiver

#### Description of the company's history:

Bluecon® International offers proven compact wastewater purifying units, in which domestic wastewater is blueconized into irrigation water. Blueconizing is a new physical technology to purify wastewater to optimise the water cycle. The ability to blueconize domestic wastewater from villages and small towns into irrigation water, fits well in an environmentally sustainable policy and re-use of water.

#### Description of the company's core activity:

Bluecon® International offers compact and modular units. The Bluecon® can be realised without large complex infrastructural and sanitation systems. Bluecon® International takes care of the installation, operation and service or maintenance of its units to guarantee the quality of the irrigation water and to unburden the customer.

#### The benefits

- Cleaning of domestic wastewater at low cost
- 100% Physical treatment
- Guaranteed water quality, meeting local requirements
- 30% less sludge than in a traditional biological treatment system
- No large investments in infrastructure, pumps and sewage systems
- Transparency and unburdening of the customer by optional long-term service and maintenance contract
- Project time 6-8 weeks
- Suitable from 2.000 to over 10.000 inhabitants with multiple units
- Safe re-use of water with disinfection module
- Availability of extra modules for future upgrading

#### Bluecon® would like to meet:

Campings, municipalities, engineering companies active in water treatment

#### Language required:









## PureBlue Water B.V.

https://www.pureblue.nl/en

Mr. Angelo De Mul

#### Description of the company's history:

PureBlue Water B.V. (PureBlue) develops high-quality and innovative products and solutions for water treatment, which are in line with its mission and principles.

#### Description of the company's core activity:

Innovation and development, as well as "doing good" for the planet and its people, are deeply rooted in PureBlue's entrepreneurial model. Finding sustainable solutions for the continuous reuse of water is central and can be found in every product. By developing new techniques and technologies, PureBlue wishes to contribute to numerous ecological and social issues. PureBlue strives for these developments to be deployed globally and to make a significant contribution to solving these issues. The developed products are sold in various market segments in order to maximize the impact of our solutions in particular. A solution is only successful for PureBlue if the customer is satisfied and if the solution meets PureBlue's mission.

#### PureBlue Water would like to meet:

Waterboards

Communities

Language required: